DOE/007/003

# Developers unveil giant tar sands project

By Scott Lloyd

**SUNNYSIDE — This little city lost some economic lifeblood last month with the shutdown of U.S. Steel's Horse Canyon Coal Mine, but it may soon get a transfusion if plans of two giant tar sands developers are realized.**

Officials from Chevron Resources Co., San Francisco, and GNC Energy Corp. unveiled the plans for local and state government officials and news reporters Tuesday, and took them on helicopter tours of the rich tar sand deposits on the ridges east of here.

They said their project could employ as many as 1,000 workers by the end of this decade.

The announcement comes on the heels of an agreement signed last Wednesday in San Francisco whereby Chevron purchased 51 percent of the GNC project, placing it further within the realm of possibility.

"GNC did not have managerial expertise or the financial capability to do it by themselves," said Steve Coffey of Chevron. "The SFC said they had to find a partner."

**Best tar sands in USA**

"Of all the tar sands deposits in the United States, this probably has a better chance of success than any we're aware of," Chevron's Ken Castleton said of the 2,000-acre project.

The pristine city of Sunnyside, sits at the foot of ridges rich with tar sand deposits. The deposits, east of the city, could significantly affect the area's economy if a proposed mining operation which could employ 1,000 people is successful.

Castleton described tar sand as a mineral which has been impregnated with bitumen, a tar-like asphalt material, which can be refined into a synthetic crude oil.

He said the Sunnyside deposits, which contain 8 percent bitumen by weight, could yield up to 350 million barrels.

"This compares well with a recent find off the coast of California which is said to be the largest find since Prudhoe Bay, (Alaska)," he noted.

Castleton said the mineable deposits allow recovery of 80-90 percent of the bitumen, as opposed to the less efficient method of pumping the substance from the ground.

**3 phase program**

Stressing that many of the plans "are not set in concrete yet," Castleton outlined a three-phase program aimed at full-scale commercial production by 1990.

The first phase commenced with the deal signed last week. Castleton said Chevron may eventually own as much as 75 percent of the project.

As part of phase one, the resource is drilled from the ground and is evaluated at GNC's plant in Salt Lake City. There, the tar sands are subjected to a flotation-extraction process, delayed coking and hydro-treating, resulting in what Castleton said is a high-grade feed material for petroleum refineries.

He said the first phase would probably not be completed before the end of next year.

Phase two involves construction of a semi-commercial pilot plant on the center-most ridge of the site. Possibly starting in 1985, it would be capable of producing 1,000-1,500 barrels a day of the product, extracted from 1,000-3,000 tons of ore a day and an equivalent amount of waste material.

Removed through conventional drilling and blasting methods, the mineral would be transported via conveyor belt to a nearby mill. There it would be crushed and ground and 70 percent of the waste material removed in a flotation process.

A solvent extraction process would yield a material of 90 percent bitumen which would be shipped to the refinery at Salt Lake City for hydrotreating and production of the feed material for the petroluem refineries.

**60 million cost**

Employing 200-250 people, the pilot plant would cost about $60 million, Castleton said.

Phase three involves construction of a major surface mine on the northwest ridge and possibly the southeast ridge of the firms' holdings.

The mine is anticipated to produce 20,000-35,000 barrels a day of synthetic crude oil extracted from 100,000 tons of ore a day. Castleton said that compares with the Kennecott Copper Mine at Bingham

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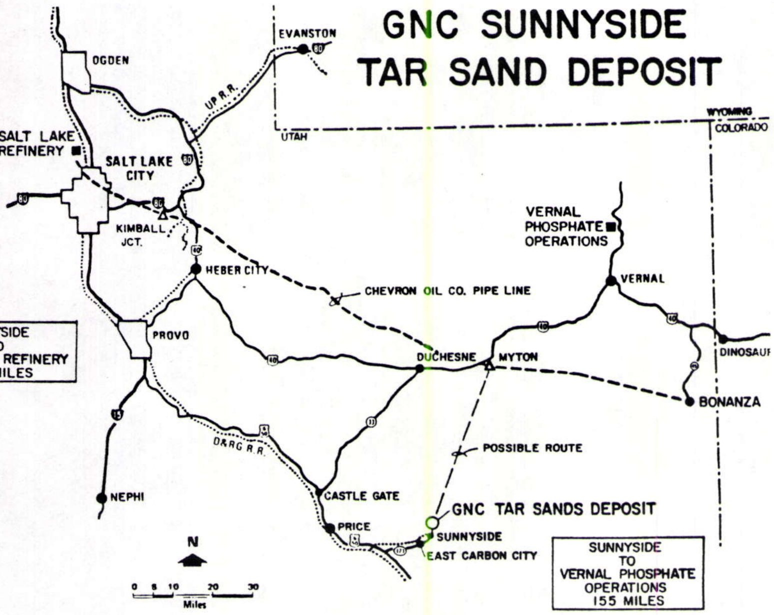


Map illustrates location of GNC Sunnyside Tar Sand Deposit in relationship to major shipping routes. The full-scale operation, estimated to begin in 1990, would produce synthetic crude oil which would be shipped to Salt Lake City via Chevron's existing pipeline at Myton.

# Tar sands

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Canyon, although there would not be as much waste material.

It would be transported a short distance, crushed into a course ore, and shipped by conveyor belt down Whitmore Canyon through the West Ridge tunnel to a proposed GNC mill. There it would undergo the refining process. The synthetic crude would then be shipped to Chevron's existing pipeline at Myton, where it would be sent to the refinery in Salt Lake City.

**Sands used for roads**

This is not the first time the deposits have been mined. Helicopter passengers flying over the deposits could see a defunct aerial tramway, still standing as evidence of an operation carried on in the 1930s.

State Sen. Omar B. Bunnell, a long-time Carbon County resident, recalled that the material was used for road paving. He said it did not hold up well under vehicle traffic, and the operation was shut down in the latter part of the decade.

The viability of the current project is somewhat tenuous as well. A report issued earlier this month by the Utah Energy Office indicates that current economic conditions and relatively stable oil prices have threatened most proposed projects.

"The price of crude oil has leveled off and the rate of return on synfuel developments does not provide enough incentive for large-scale private investments," program specialist Rick Anderson said.

Moreover, the Synthetic Fuels Corp., organized by Congress to assist in the development of alternative fuel sources has been conservative with its funding.

Competition for subsidies to coal, oil shale, heavy oil and tar sands projects will be keen, with no assurance that Utah projects will receive assistance, the report indicates.

## 4 countries top the list

**Four countries will soon supply enough coal to supplant the world's fast-dwindling oil supplies.**

They are the USSR, U.S.A., Red China and South Africa in that order.

# Chevron, GNC sign agreement

**SAN FRANCISCO, Nov. 10 — Chevron Resources Company, a wholly owned subsidiary of Standard Oil Company of California, and GNC Energy Corporation of Dallas have signed an operating agreement covering development of a 2,000-acre tar sands resource in Utah.**

The agreement establishes Chevron as operator. Chevron has initially acquired a 51 percent interest, and would increase its interest to as much as 75 percent as the project matured. Upon signing today, GNC received a cash advance of $2 million from Chevron.

As announced last September when a letter of intent was signed, the tar sands are located in Sunnyside, about 120 miles southeast of Salt Lake City.

After a resource and process evaluation phase, Chevron and GNC may proceed in several years to a first commercial production unit, and eventualy to production on a lager scale.

Total investment in all three phases of the project may exceed $1 billion, assuming favorable economics.

In anticipation of the agreement and approaching winter, three drilling rigs were recently deployed at Sunnyside to probe and evaluate the resource before first snows.

Meanwhile another Socal subsidiary, Chevron Research Company, has begun to evaluate final process technology for the project.

An application to the U.S. Synthetic Fuels Corporation for price guarantees was made earlier by GNC. The project is now one of 11 finalists in the current phase of SFC's efforts to promote synfuels development.

Signing the agreement for their companies were R.F. Schlecht, president of Chevron Resources, and William Hudson, president of GNC Energy.

Mining and state officials admire cake in honor of Skyline Mine's safety record. From left are Glenn Zumwalt, vice president and general manager of the mine; Wally Schell, MSHA training director; Walter T. Axelgard, chairman of Utah State Industrial Commission; Vernal Mortenson, vice president of mining operations, Coastal States Energy Co.; Jack Steveson, administrative manager, Skyline Mine; John Garr, manager of governmental and public affairs, Coastal States Energy Co.; and mechanic David Zeller who surprised the company with the cake.